

Notice of Allowability

Application No.

10/713,352

Applicant(s)

KIM, DONG-SUN

Examiner

Art Unit

K. Feggins

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to ____.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☒ The drawings filed on 17 November 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date ____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date ____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other ____. |

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: The primary reason for allowance of claims 1-3 is the inclusion of the limitations of a printing apparatus that includes a plurality of contact points formed at the electrical connecting portion, each in a form of a hollow projection so as to correspond to a circuit portion of the print head and having a hole formed at an apex of the projection; an elastic member interposed between the electrical connecting portion and the fixing portion and having a plurality of protruding portions corresponding to the plurality of contact points, wherein the elastic member presses the electrical connecting portion so that the plurality of contact points are in line contact with the circuit portion of the print head when the print head is mounted in the main body. It is these limitations found in the claims, as they are claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for allowance of claims 4-7 is the inclusion of the limitations of a printing apparatus that includes a plurality of contact points formed at the electrical connecting portion, each in a form of a hollow projection so as to correspond to a circuit portion of the print head and having a hole form at an apex of the projection; an elastic member interposed between the electrical connecting portion and the fixing portion and having a plurality of protruding portions inserted into the holes formed at the plurality of contact points, wherein the elastic member presses the electrical connecting portion so that the plurality of contact points are in line contact with the circuit portion of the print head when the print head is mounted in the main body. It is these limitations found in

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the claims, as they are claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for allowance of claims 8-10 is the inclusion of the limitations of an electronic device that includes a plurality of contact points formed at the electrical connecting portion, each in a form of a hollow projection so as to correspond to a circuit portion of the replaceable component and having a hole form at an apex of the projection; an elastic member interposed between the electrical connecting portion and the fixing portion and having a plurality of protruding portions corresponding to the plurality of contact points, wherein the elastic member presses the electrical connecting portion so that the plurality of contact points are in line contact with the circuit portion of the replaceable component when the replaceable component is mounted in the main body. It is these limitations found in the claims, as they are claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for allowance of claims 11-14 is the inclusion of the limitations of an electronic device that includes a plurality of contact points formed at the electrical connecting portion, each in a form of a hollow projection so as to correspond to a circuit portion of the replaceable component and having a hole form at an apex of the projection; an elastic member interposed between the electrical connecting portion and the fixing portion and having a plurality of protruding portions inserted into the holes formed at the plurality of contact points, wherein the elastic member presses the

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electrical connecting portion so that the plurality of contact points are in line contact with the circuit portion of the replaceable component when the replaceable component is mounted in the main body. It is these limitations found in the claims, as they are claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gota et al. (US 6,536,872 B2) disclose a connection module having a base with a set of points and a cable with a plurality of shaped contacts, located to engage on the points and a set of shaped contact protrusions to engage the cable and urge one of the contacts into engagement with one of the points. Schreiber et al. (US 6,402,526 B1) disclose a microelectronic contact assembly having a flexible circuit with a plurality of contacts and springs to apply a compressive force to at least one of the contacts. Kakizaki et al. (US 5,515,086) disclose a contact structure located between a flexible cable having a plurality of projections provided on a contact plane of cable, to which an elastic member having a plurality of protrusions formed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Communication With the USPTO

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Feggins whose telephone number is 571-272-2254. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talbott Dave can be reached on 571-272-1934. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


K. FEGGINS
PRIMARY EXAMINER